

REMARKS

Claims 1-16 are pending in this application. Reconsideration is requested in view of the following remarks.

Applicants appreciate the courtesies shown to Applicants' representative by Examiner Jackson in the May 29, 2009 interview. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

Rejection Under 35 U.S.C. §102(b)

Claims 1, 3-9 and 15 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Inoue (JP 2000-233929). Applicants traverse the rejection.

Applicants submit that the formula recited in Inoue and relied upon by the Patent Office is obviously erroneous. Inoue thus does not describe composite tungsten oxide fine particles expressed by a general formula $M_xW_yO_z$ where M is at least one element selected from the specified group (which group includes V), W is tungsten, O is oxygen and the formula satisfies $0.001 \leq x/y \leq 1$ and $2.0 \leq z/y \leq 3.0$ as recited in claims 1 and 2.

The Patent Office asserts that when x is 0.7 in Inoue, the composite oxide of Inoue would read upon the composite oxide $M_xW_yO_z$, where z=2, x=0.3 and y=0.7, and thus x/y is 0.429 and z/y is 2.857 (Page 2, paragraph 2 of the Office Action).

Inoue describes the formula $V_{(1-x)}O_2M_x$ where M is Mo and x = 0.7 to 2.7. However, this formula is obviously erroneous, in view of the fact that the formula is impossible where $x > 1.0$ (because V would have to be less than 0, an impossible result). In other words, the formula is self-contradictory. To determine Inoue's actual teachings, the Examples therein are enlightening. Inoue describes in the Examples particles represented by the formula $V_{(1-x)}O_2M_x$ where x = 0.0072 to 0.0223 (i.e., much less than 0.7). Putting the molar ratio of VO_2 to WO_3 in terms of x/y, the range of molar ratios of VO_2 to WO_3 is from about 43.8 to about

137.0. This ratio clearly does not satisfy the condition $0.001 \leq x/y \leq 1$, as recited in claims 1 and 2. (See attached Declaration under 37 C.F.R. §1.132 of Kenji Adachi ("Declaration").)¹

Applicants have submitted the Declaration as evidence in support of Applicants' assertion that the formula of Inoue relied upon by the Patent Office is obviously erroneous. The Declaration is timely submitted herein because Inoue was not cited by the Patent Office in any Office Action prior to the Final Office Action dated March 9, 2009 (as discussed and agreed upon in the May 29 interview). The Declaration thus must be considered (M.P.E.P. §716.01).

As attested in the Declaration, the formula of Inoue is in error because $0.7 < x < 2.7$ encompasses a range, the majority of which cannot satisfy the formula $V_{(1-x)}O_2M_x$. The formula is thus self-contradictory. Also, the Examples describe several preferred embodiments, none of which satisfy the range $0.7 < x < 2.7$. Given (1) the obviously incorrect general formula of Inoue and (2) that the Examples of Inoue all have x much less than 0.7, there is no basis to support the Patent Office's assertion that x in Inoue ever can be 0.7, and thus no basis to allege that the composite oxide allegedly taught by Inoue would satisfy the composite of claims 1 and 2.²

Applicants submit that a person of ordinary skill in the art would not have been able to derive the composite tungsten oxide fine particles recited in claims 1 and 2 from the description of Inoue. Rather, a person of ordinary skill in the art would have recognized that the formula was obviously erroneous, and would have set out to determine what the correct

¹ The Declaration is a copy of the Declaration submitted in copending Application No. 10/544,373 ('373 Application). The Declarant, Dr. Kenji Adachi, is a co-inventor of both the '373 Application and the present application.

² The Declaration, at paragraphs 11 and 12, discusses "the fine particle dispersions." The particles of the "fine particle dispersion" and the particles of the composite tungsten oxide fine particles of claims 1 and 2 are defined by a similar formula ($M_xW_yO_z$, wherein the formula satisfies $0.001 \leq x/y \leq 1$).

formula is, as Applicants have done. The Examples of Inoue would have led any person of ordinary skill in the art to a result different from the present claims. The formula recited in claims 1 and 2 was thus not put in possession of the public by the disclosure of Inoue.

Evidence in support of this contention is provided by the Declaration.

In the interview, the Examiner expressed the view that even considering the formula of Inoue to be erroneous on its face because it is self-contradictory, she could still rely upon the range $0.7 < x < 1$. Applicants respectfully submit that the present facts are similar to *In Re Yale*, 434 F.2d 66, 168 USPQ 46 (CCPA 1970), where an article misidentified a compound through a typographical error that would have been obvious to a person of ordinary skill in the art. Correspondence from a co-author of the article confirming the misidentification was persuasive evidence that the erroneously typed compound was not put in the possession of the public. Here, Inoue misidentifies the formula recited therein. The misidentification would have been obvious to a person of ordinary skill in the art, because it is self-contradictory and not supported by any of the Examples in Inoue. Applicants have submitted the Declaration as evidence in support of this contention.

Applicants thus submit that Inoue has not put the formula recited in claims 1 and 2 in the possession of the public, and that the allegedly operable range of Inoue ($0.7 < x < 1$) cannot properly be relied upon by the Patent Office..

Further, as described at page 15, line 15 to page 16, line 24 of the instant specification, the laminated structures of claims 1 and 2 have the advantage of achieving a chemically stable infrared screening effect by generating a sufficient quantity of free electrons, while avoiding generation of an impurity phase, i.e., a crystal phase of WO_2 , in the infrared shielding material. Such characteristics are not described by Inoue, nor would the compositions described by Inoue be expected to inherently possess such characteristics. Again, the Declaration provides evidentiary support for this contention.

Applicants respectfully submit claims 1 and 2 are not anticipated by Inoue. Because each of claims 3-16 depend from claim 1 or 2 and incorporate all limitations thereof, they also are not anticipated by Inoue for at least the same reasons.

Applicants request withdrawal of the rejection.

Rejection Under 35 U.S.C. §103(a)

Claims 1-16 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kondo (U.S. Patent No. 5,830,568) in view of Inoue.

Kondo describes laminated glass comprising an intermediate layer, wherein functional ultra-fine particles are dispersed in the intermediate layer. Kondo does not describe the composite tungsten oxide fine particles recited in claims 1 and 2, as admitted by the Patent Office.

Inoue is cited by the Patent Office as above, allegedly describing the composite tungsten oxide fine particles recited in claims 1 and 2.

As discussed above, the formula of Inoue, relied upon by the Patent Office as allegedly describing the composite tungsten oxide fine particles recited in claims 1 and 2, is obviously erroneous. Inoue has thus not put the formula recited in claims 1 and 2 in the possession of the public. The combination of Kondo and Inoue therefore fails to describe each and every element of claims 1 and 2. The Patent Office has thus failed to establish a *prima facie* case of obviousness as to claims 1 and 2. Because each of claims 3-16 depend from claim 1 or 2 and incorporate all limitations thereof, they also are not obvious over Kondo and Inoue for at least the same reasons.

Applicants request withdrawal of the rejection.

Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-16 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:
Rule 132 Declaration

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